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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------------|-----------------------------|
| 10/081,794 | 02/21/2002 | Peter J. Fritz | 54666US006 | 4815 |
| 32692 7590 05/22/2007 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427 | | | EXAMINER ELEY, TIMOTHY V | |
| | | | ART UNIT 3724 | PAPER NUMBER |
| | | | NOTIFICATION DATE 05/22/2007 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com
LegalDocketing@mmm.com

Office Action Summary

Application No.

10/081,794

Applicant(s)

FRITZ ET AL.

Examiner

Timothy V. Eley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-60 is/are pending in the application.
- 4a) Of the above claim(s) 33,34,41,42,49-51 and 55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31,32,35-40,43-48,52-54 and 56-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 31,32,35-40,43-48,52-54,56, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al(3,562,968) et al in view of Hamerski(5,593,120), as applied in the rejection filed September 25, 2006.

- Regarding claim 57, Johnson et al, as modified, does not disclose that the layer of adhesive has a thickness in the range of 0.05-0.3 cm.
- However, Johnson et al, as modified, teaches that the layer of adhesive has a thickness in the range of 5-10 cm to permit the fastening assembly to be adhered to a rough surface such as a concrete block, and thus the thickness(and amount) of adhesive is dependent upon the type of surfaces being adhered together. See Hamerski at column 4, lines 48-53.
- Therefore, the exact thickness of the layer of adhesive would have been an obvious matter of choice to one have ordinary skill in the art at the time the invention was made since the thickness would depend upon the type of materials being adhered together.

1. Claims 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al(3,562,968) in view of

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Hamerski(5,593,120) as applied to claim 31 above, and further in view of applicant's admitted prior art(AAPA).

- Johnson et al in view of Hamerski is explained above.
- Johnson et al, as modified, does not disclose releasably mechanically fastening the surface conditioning member to a frame of a spin welding apparatus, attaching the fastener to a fixture of the spin welding apparatus such that the fixture only has two degrees of freedom of movement relative to the frame and rotating the fastener with the layer of adhesive not in direct contact with both of the fastener and the surface conditioning member, and moving the rotating fastener toward the surface conditioning member such that the fastener is in direct contact with the layer of adhesive and the layer of adhesive is in direct contact with the surface conditioning member.
- However, the AAPA discloses on page 15, lines 15-20 of applicant's specification that any commercially available spin welding apparatus 60 capable of obtaining the conditions described herein may be used(the description being given on pages 13-15 of applicant's specification).
- Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have further modified the Johnson et al method by using a commercially available spin welding apparatus as taught by the AAPA on page 15, lines 15-20 of applicant's specification, whereby the surface

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conditioning member is releasably fastened to the frame of the spin welding apparatus, and the fastener attached to a fixture of the spin welding apparatus, such that the fastener may be spun welded to the conditioning member. Exactly when the fastener is caused to rotate would have been an obvious matter of choice since such would depend upon the exact strength requirement of the adhesive bond and the exact preference of the user of the apparatus, since the apparatus is capable of spinning the fastener before and/or after it is brought into contact with the conditioning member.

Response to Arguments

2. Applicant's arguments filed February 26, 2007 have been fully considered but they are not persuasive.

- Applicant argues that the fastening assembly 10 of Hamerski is bonded to an element such as, a wall, ceiling, or similar structure which are not "surface conditioning members," and are entirely distinct from abrasive discs, and that although Hamerski may disclose spin welding the inner portion 20 to a ceiling or wall, one of skill would not view this methodology as having any correlation to the abrasive disc and related method of manufacture associated with Johnson.

o However, Hamerski teaches that it is well known in the art to use a spin welding technique to bond two planar members together. Such a teaching is within the same field of the

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method of Johnson et al, which discloses adhesive bonding a fastener to a conditioning member, each having planar surfaces. Furthermore, Hamerski discloses in column 1, lines 21-end to column 2, lines 1-44, other techniques for adhering members together using spin welding and other bonding techniques.

- Applicant argues that Hamerski cannot be viewed as informing one of skill that the disclosed spin welding methodology would work with materials other than concrete or walls, or the fiber-filled nylon drive button 40 to the raw drills cloth layer 32 of Johnson.
 - o Firstly, clearly a "wall" is not a material. Secondly, applicant, who is skilled in the art, knows that the spin welding technique of Hamerski would most definitely work to adhere the fiber-filled nylon drive button 40 to the raw drills cloth layer 32 of Johnson.
- Applicant argues that the thickness of the adhesive used by Hamerski is thicker than the 0.05-0.3 cm recited by applicant.
 - o Again, applicant, who is skilled in the art, knows that the thickness of the adhesive level is definitely dependent upon the types of materials being adhered together, and the desired strength of the bond.
- Applicant's arguments regarding newly presented claims 58-60 have been addressed in the above rejections in view of applicant's admitted prior art.

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Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

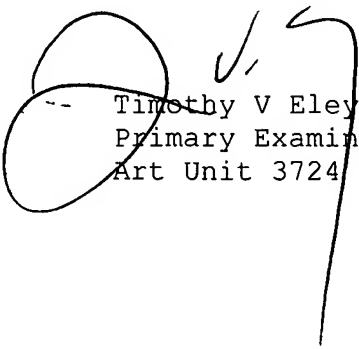
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy V. Eley whose telephone number is 571-272-4506. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Timothy V Eley
Primary Examiner
Art Unit 3724

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